Protapatura iwasei, a new Nymphalid butterfly from Kurdistan, the Northern Iraq (Nymphalidae)

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In this paper I describe a remarkable new species of the Nymphalidae, of which the first specimen was collected at Amadiya in the Northern Iraq during my collecting trip from June to July of 1970, and further two males and three females were collected at the same locality in summer of 1971.

In this opportunity I wish to express deepest appreciation to the late Mr. TARO IWASE for his kind guidance during his lifetime, and also express regret over his death during my stay in Iraq. The specific name of this new species is dedicated to him. Particular thanks are due to Mr. T. G. HOWARTH, British Museum (Natural History), Professor T. SHIRÔZU, Kyushu University, and to Dr. Y. KUROSAWA, National Science Museum, Tokyo for their kind advices. My thanks are also due to Associate Professor T. SAIGUSA, Kyushu University for his kind suggestion on the male genitalia of the new species and to Mr. MATHEUS TOMA who cooperated with me during the collecting trip.

***Protapatura iwasei* IGARASHI, sp. nov.** (モンキコムラサキ 新種新称)
(Figs. 1 & 2, ♂; 3 & 4, ♀; 5-7, ♂ genitalia)

Description: ♂. Described from the worn holotype. Length of forewing about 33 mm. Wing broader and more rounded than in *Apatura ilia* (DENIS & SCHIFFERMÜLLER). Forewing termen weakly concave, apex more or less roundly produced. Upperside of forewing: Ground colour blackish brown, more or less greyish near termen; a preapical yellow marking occupying spaces 6 to 8 small and rounded; a broad yellow discal band running obliquely from subtornal area to near the middle of costa but not extending anteriorly beyond vein 9; the band expanding both inwardly and strongly outwardly in space 2. Underside of forewing: Ground colour yellowish grey with a slight greenish tinge, but apparently darkened to dark fuscous along the discal band; the preapical yellow marking and the yellow discal band almost as on upperside, but somewhat paler in colour; the latter containing a weakly developed dark spot in space 2; two minute black spots in discoidal cell; spaces 4 to 6 each with a minute white spot distad of the discal band. Upperside of hindwing: Ground colour blackish brown as in forewing; a prominent yellow discal band expanded inwardly in spaces 2 and 3, strongly constricted at vein 6 and completely interrupted at vein 7; submarginal portion with an obscure whitish marking in each space. Underside of hindwing: Ground colour yellowish grey with a slight greenish tinge as in forewing, broadly greenish brown along the discal band: the discal band somewhat narrower than that on upperside and completely separated at veins 6 and 7, yellow in spaces 1 to 3, white with pearly lustre in spaces 4 to 7. The submarginal markings obscure and greyish white.

Head brownish grey above. Antenna black above and orange beneath except for entirely orange extreme tip and black basal portion of ventral surface. Compound eye yellow with a slight greenish tinge and marked with blackish brown spots in life, changed to dark brown in the dried specimen. Labial palpus greyish yellow above, and yellowish white beneath. Proboscis yellow, gradually infuscated to dark brown beyond the middle in life, but changed to yellowish brown in the dried specimen. Thorax and abdomen blackish brown, densely covered with greyish brown scales and hairs on terga, and the yellowish white on sterna. Legs covered with yellowish white scales.

Male genitalia: Tegumen small, vinculum deep, saccus 1.3 × as long as height of ring; uncus as long as tegumen, with two subdorsal ridges which form apically the small bifid tip; gnathos very broad, more or less narrowed ventrally; phallus very long, 2 × as long as height of ring, zone situated at the middle, coecum penis 1/5 × as long as whole length of subzonal sheath, suprazonal sheath beyond the middle gradually thickened towards vesica, and with two pairs of small lateral

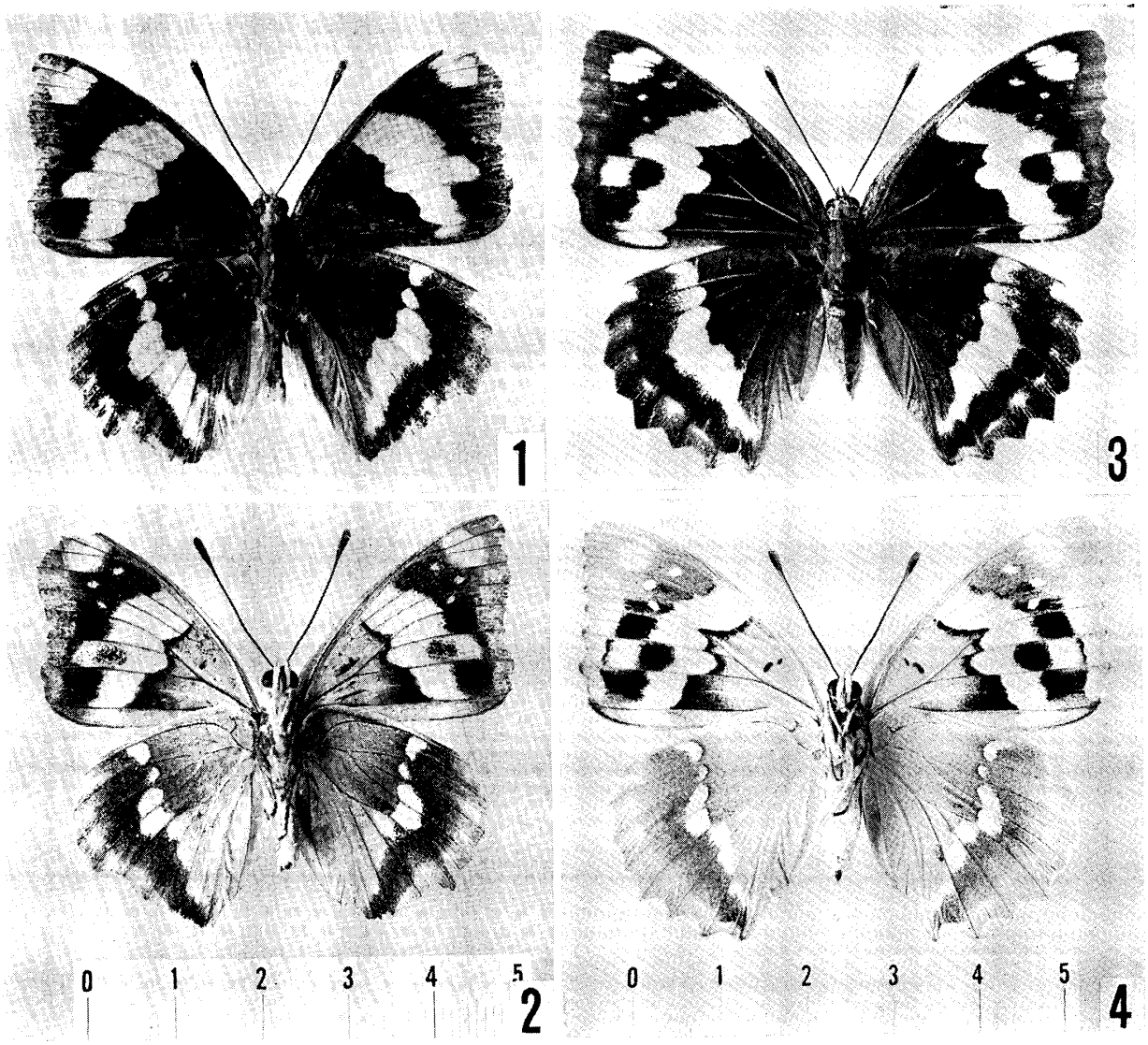

Fig. 1. *Protapatura iwasei*, sp. nov., holotype ♂, upperside, Singa Valley, Amadiya, Iraq, 3. vii. 1970. Fig. 2. Ditto, underside. Fig. 3. Ditto, paratype ♀, upperside, same locality, 27. vi. 1971. Fig. 4. Ditto, underside.

spines proximad the middle, and bearing a long preapical dorsal process just proximad of vesical opening, the process 1/4 × as long as suprazonal sheath, directing almost dorsally, bifurcate at the middle into a shorter left projection and a longer right lamella, vesical opening broad, obliquely dorsal, and weakly sclerotized; valva broad, 1.4 × as long as broad, sacculus weakly raised, apical margin of valva with two groups of spines, each group containing a strong, inwardly directing spine; juxta U-shaped, slender.

♀. Length of forewing 36.0 - 38.0 mm. Wings broader and transversely longer than in ♂. Forewing termen almost straight, only slightly produced at apices of veins 2 and 3. Hindwing termen more distinctly scalloped than in other apaturine species. Upperside of forewing: Markings similar to those of ♂, but differing as follows; the yellow discal band narrower, its anterior margin extending to vein 11, inner margin much dentate, strongly angulate at vein 4, its subtornal portion in space 1 b+c of the same width, and not tapered posteriorly as in ♂, in space 1a the band much broader than in ♂; space 2 with a distinct rounded black spot which disappears in ♂; spaces 4 to 6 each with a small yellowish white spot which in ♂ appears only on underside. Costal area rather densely covered with yellowish scales which are rubbed off in the worn specimen. Fringe white, checkered

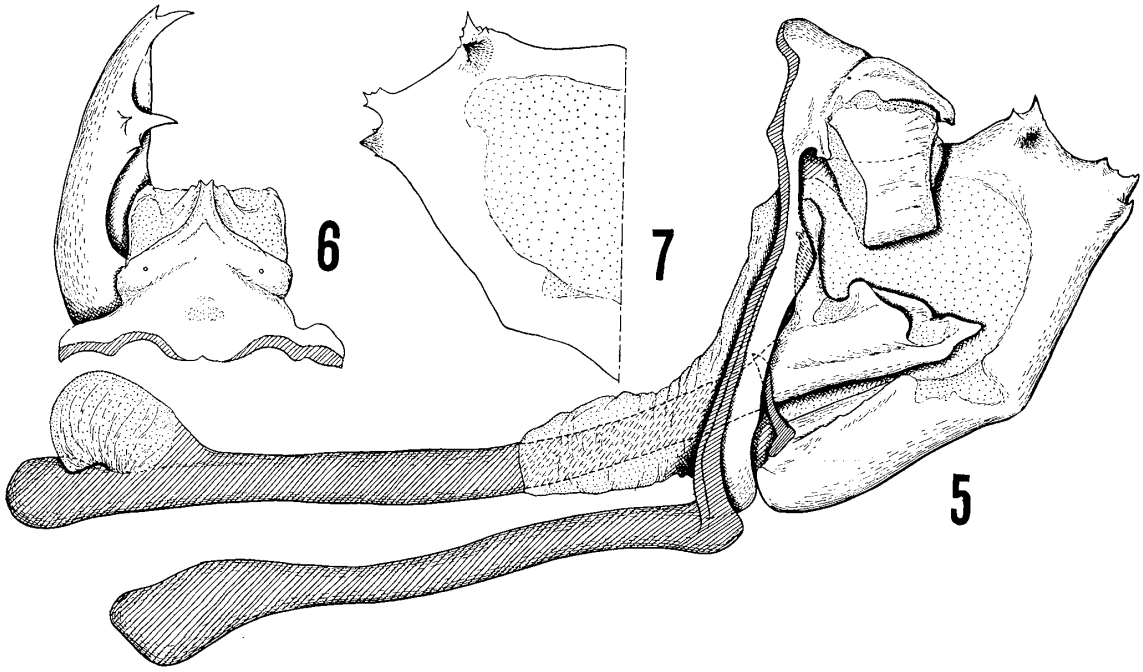

Fig. 5. ♂ genitalia of *Protapatura iwasei*, sp. nov., whole genitalia excluding left valva removed. Fig. 6. Ditto, dorsal aspect of dorsum and right valva. Fig. 7. Ditto, apical half of left valva.

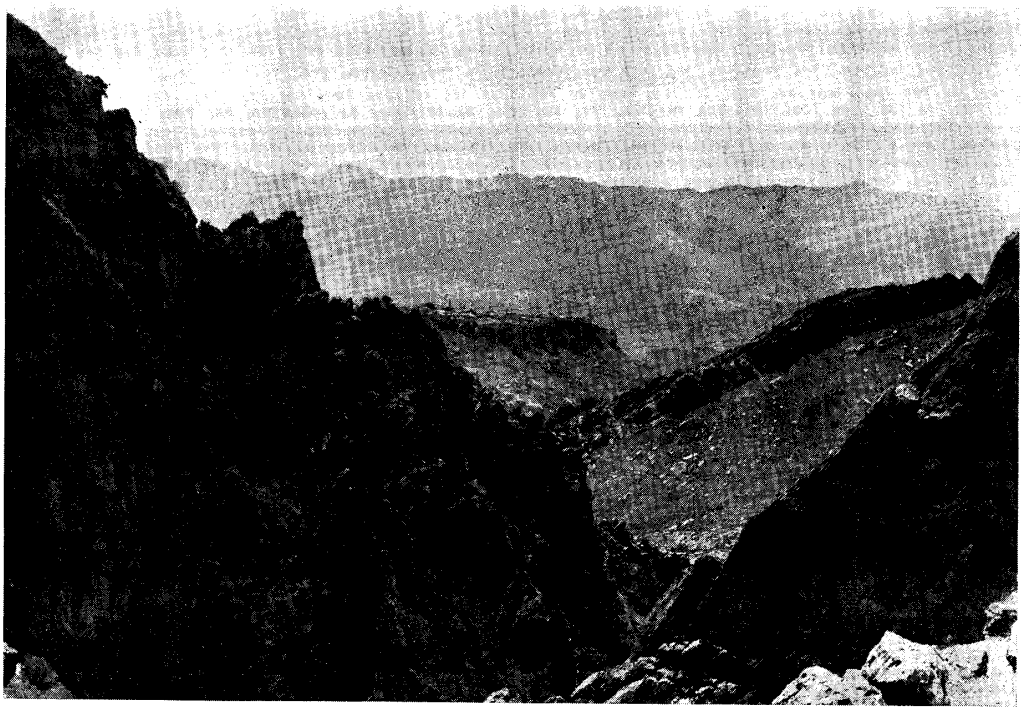

Fig. 8. Singa Valley, the type-locality of *Protapatura iwasei*; a plateau beyond the valley is town of Amadiya.

with dark brown at apices of veins. Underside of forewing: Ground colour yellow with a slight greenish grey tinge, basal half and submarginal portion pale greyish yellow; discal band almost as on upperside, its inner margin distinctly black-bordered, a black spot in each of spaces 1b+c to 3 equally well developed; the small white spot of spaces 4 to 6 and two black discoidal cell spots larger than in ♂. Upperside of hindwing: The yellow discal band beginning at vein 1b, while in ♂ beginning at middle of space 1b+c, slightly broader at spaces 6 and 7 than in ♂, its outer margin not so sharply bordered as inner margin; a crescent-shaped yellow marking at tornus; costa entirely dirty white, while in ♂ its apical portion brownish. Fringe white except for those at apices of veins 2, 3 and 4 blackish. Underside of hindwing: Ground colour as in forewing; markings similar to those in ♂, but discal spot in space 7 crescent-shaped, which is much rounded in ♂.

Holotype: ♂, Singa Valley (1,400 m alt.), Amadiya, Northern Iraq, 3. vii. 1970, S. Igarashi leg. (in the collection of National Science Museum, Tokyo).

Paratypes: 1♂1♀, 27. vi. 1971; 2♀♀, 29. vi. 1971; 1♂, 26. vii. 1971, all from the same locality as holotype. (in the author's collection).

Distribution: Northern Iraq.

Remarks: This new species is easily distinguished from the known species of the Nymphalidae by its external appearances. This species was found in the mountainous region of Singa Valley at altitude of 1,000-1,400 m, but was never observed at the same altitude of mountains near plains. Possibly it seems to be a deep mountain butterfly of which habitat is confined to the depths of the mountain districts. The habitat was much arid and the valley competely dried up at the time of appearance of this species. This butterfly is a swift flier. It also alighted on rocks and sometimes visited the springs which were very few in the habitat. Sulaf Valley near the type-locality is well covered with rich woods and water of streams is very abandant throughout the year, but I and Mr. TOMA could not find this species in this valley. This species seems to prefer a dried rocky places rather than woods. It is a very rare species and we observed only four individuals for a week from the early part of June to the beginning of July in 1970. This season, however, seems to be the peak of the appearance of the adult insects.

摘　　要

筆者は1970年6月下旬から7月上旬にかけて北イラクのアマディア周辺に採集を試み，タテハチョウ科の1新種の雄1頭を得た．そしてさらに1971年，イラク人の協力者マティウス氏により雌が発見され，3♂♂3♀♀を検することができた．

本種は従来知られたコムラサキ属に近縁であるが，前後翅の地色は黒褐色で大きな黄色紋を装う独特なもので，類似の種はない．

生殖器の形態からはきわめて原始的な特徴が検出され，新属と見做されることが九州大学教養部生物学教室教授白水　隆博士，同助教授三枝豊平氏によって明らかにされた．

本種の発生は6月上旬から7月上旬が最盛期と考えられる．棲息地はアマディアに近いシンガー渓谷の標高1,000～1,400m の区域が観察された．シンガー渓谷に程近いスラフ渓谷 (Sulaf Valley) は乾期にも多量の水が奔流していて樹木が豊富であるが，全く本種を目撃することができなかった．また平野に近い所では同標高の山からも本種を見出すことはできなかったところから，山嶽地帯の奥深い地域に限られて発生する“深山蝶”と考えられよう．

5月以後は冬季までの長期間，全く降雨のない乾期のため渓谷は完全に涸れていて，気温は高い．蝶は嶮しい岩場を好み，熱した岩石上に静止し，時に山麓の湧水に飛来する．

飛翔はきわめて迅速である．

“THE LEPIDOPTERA OF IRAQ” の著者 Wiltshire (英国人) が20年間もイラクに在住し，屢々アマディアに採集を試みながら本種を発見できなかったのは，本種の個体数が少く，分布が狭く局限されているからであろう．